Alberta Emergency Management Agency
2008 Fire Prevention Week Campaign
October 5-11, 2008

Alberta Emergency Management Agency

ATCO Gas ATCO Electric

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Other sources of information

Fire prevention and safety tips
Safety tips sheets are available on the AEMA website at:
http://www. aema.alberta.ca

Access to the online kit
Visit the Alberta Emergency Management Agency website at:
http://www. aema.alberta.ca Under the "Fast Facts" section on the right-hand side, click on the "Fire Prevention Week Campaign Kit" option.

Contact us
For more information on Fire Prevention Week, contact the AEMA at (780) 422-9000.
Outside Edmonton, call toll-free within Alberta by dialing 310-0000.

Message from the Managing Director of the Alberta Emergency Management Agency

Fire has an impact on everyone's life, from using it for cooking, for heating or even for recreation. Used properly, fire can be a very useful tool; however, improper use can and frequently does have tragic results. In Alberta, there are on average, 1,500 home fires reported each year to the Alberta Emergency Management Agency. These fires kill an average of 20 people and injure an additional 165. Every year fire causes approximately $93 million in property loss.

With a mandate to protect people, their property, the environment and the economy, the Alberta Emergency Management Agency targets Fire Prevention Week to reach out to Albertans with information about fire safety and prevention. The focus of this year's Fire Prevention Week – *It's Fire Prevention Week: Prevent Home Fires!* – is extremely important as it targets the very heart of each of us – our homes and our families. Fire can take a tragic toll on us, our loved ones and our homes.

There is a lot that we can do to make our homes fire safe. For example, staying focused when cooking will help prevent fires from happening. If they do happen, having an early warning from a working smoke alarm and having practiced a proper escape plan can help ensure that everyone gets out safely. We can all make small changes in our routines and our actions that will have a positive impact on fire safety.

Practicing fire safety protects you, your family and your local fire fighters as the need for emergency response is reduced.

The articles included in this year's Fire Prevention Week Campaign kit focus on the leading causes of home fires – cooking, heating, electrical, smoking and arson – and include easy suggestions to make homes safer. Together we can lessen the number of fires and fire-related tragedies in our homes.

Original signed by

E. David Hodgins CEM, S.B.St.J.

Message from the Acting Alberta Fire Commissioner

Fire Prevention Week provides an ideal opportunity to remind all Albertans about the potential negative impact fire may have on their lives. Through the media, we hear about tragic fires, but how often do we take the time to consider the impact a fire would have on us? This year's Fire Prevention Week campaign focuses on preventing home fires. This is a very important issue that definitely has the ability to positively impact each and every one of us.

Cooking is the leading cause of home fires, followed by malfunctioning electrical and heating equipment and careless smoking. Arson is referenced in this year's 2008 Fire Prevention Week Campaign Kit as it has become a significant and growing concern.

Fire can be tragic yet can be avoided by taking extra precautions and paying attention. Take a few moments to review the information in this campaign kit and then make necessary changes at home to keep you and your loved ones safe.

Original signed by

Ernie Polsom
Acting Fire Commissioner
Alberta Emergency Management Agency

Ahh, home sweet home ... or is it?

Your home should be a safe haven for you and your family. But is it? Do you regularly check for home fire hazards? Do you and your family know how to prevent fire, and what to do if fire does occur? If not, your home may not be the safe haven you have come to assume.

Fire Prevention Week, observed across North America each October, provides the ideal opportunity to remind Albertans about ways they can make their homes safe from fire. Fire Prevention Week 2008 takes place October 5-11 and this year's theme – ***It's Fire Prevention Week: Prevent Home Fires!*** – rings especially true for Alberta. Homes account for 28 percent of all fires, 61 percent of all fire deaths, 58 per cent of all fire injuries and 31 percent of all property losses due to fire in Alberta.

Cooking fires are the number one cause of home fires and home fire injuries in Alberta. Approximately 35 per cent of cooking fires involved overheated cooking oil igniting in a pot or pan while frying. Smoking-related fires are the second most common type of home fire and account for the highest number of fire deaths. Other primary sources of home fires are heating, electrical and arson fires.

Yet, there are many simple and easy ways to make your home the safe haven it should be. By learning to prevent fire and knowing what action to take should a fire break out, you can keep your family and loved ones safe from fire.

Fire Prevention Week also provides the ideal opportunity to focus on other fire safety measures in your home, starting with your smoke alarm. Smoke alarms play a critical role in alerting family members in the early stages of a fire.

The articles included in this kit provide tips on how to prevent fires as well as what to do should a fire occur. Take advantage of Fire Prevention Week to make your home a fire safe home.

Fast facts about fires in Alberta

- On average there are 5,400 fires reported to the Fire Commissioner, at the Alberta Emergency Management Agency, each year.
- These fires result in an average of 31 deaths, 280 injuries and approximately $300 million in direct property loss.
- Homes account for 28 per cent of all fires.
- Homes account for 61 per cent of all fire deaths and 60 per cent of all fire injuries.
- 31 per cent of all property losses are due to fires happening in the home.
- Most home fires start in the kitchen due to unattended cooking.
- Other common areas of fire origin are bedrooms, living rooms, exterior walls, laundry area and heating equipment rooms.
- Careless smoking is the number one cause of home fire deaths.
- Unattended cooking is the number one cause of home fire injuries.
- Seniors have the highest risk of dying in a home fire in Alberta.
- Smoke inhalation is the number one cause of death in home fires.
- Most fire deaths occur in people who are asleep at the time of fire.
- One in every four fires in Alberta is deliberately set by arsonists or vandals.

Numbers tell the story ...

The numbers are astounding ... homes account for 61 per cent of all fire deaths and 60 per cent of all fire injuries. That's why this year's Fire Prevention Week theme – It's Fire Prevention Week: Prevent Home Fires!" – is particularly important. Most home fires are cooking related, followed by smoking, arson related, heating and electrical. Yet by making just a few changes, many of these fires can be prevented. By paying greater attention to fire prevention **and** safety, hopefully these statistics can be dramatically reduced this year and beyond.

To get a sense of the ramifications of fires in Alberta, review the following statistics tables. They indicate the number of fires and related deaths and injuries for the past five years as well as the dollar losses, types of homes, major causes of home fires and fire fatalities.

Table 1. Home Fires by Year, Alberta: 2002 – 2006

Year	Fires	Deaths	Injuries	Property Loss $
2002	1621	20	171	114,677,248
2003	1596	11	198	72,907,723
2004	1516	16	193	85,640,084
2005	1482	23	142	94,457,820
2006	1456	24	117	95,624,158
Total	7671	94	821	463,307,033

Table 2. Home Fires by Type of Home, Alberta: 2002 – 2006

Type of Home	Fires	% of Fires	Deaths	% of Deaths	Injuries	% of Injuries	$ Losses	% of $ Losses
One/Two Family Dwellings	5,258	69	56	60	479	58	300,763,442	65
Apartments, Tenements, Flats	1,858	24	20	21	273	33	140,153,459	30
Mobile Homes	555	7	18	19	69	8	22,390,132	5
Total	7,671	100	94	100	821	100	463,307,033	100

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Table 3. Major Known Causes of Home Fires, Alberta: 2002 - 2006

Fire Causes	Fires	% of Fires	Deaths	Injuries	Property Loss $
Cooking	1,624	21	10	239	36,017,281
Arson/Set Fire	989	13	11	73	58,035,312
Smoking	896	12	19	111	40,791,656
Heating Eqpt. Related	823	11	5	69	52,021,093
Electrical Distrib. Eqpt.	582	8	7	29	42,325,956
Exposure Fire*	501	7	0	3	76,307,793
Candle (accident)	362	5	3	76	16,721,186
Child Fireplay	191	2	2	48	8,685,155
Appliance/Equipment Related	181	2	2	20	9,690,213
Clothes Dryer	175	2	1	11	3,910,044
Light/Fluorescent Bulb	165	2	0	10	7,590,602
Flammable/Combustible Liquid Ignition	76	1	1	19	3,750,362
Welding/Torch Too Close	41	1	0	1	1,032,041
Flammable Gas Ignition	31	0	5	15	2,488,646
All Other Causes/Unknown	1,034	13	28	97	103,939,693
Total	7,671	100	94	821	463,307,033

*An exposure fire is defined as a fire that spreads from one property to an adjacent property.

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Table 4. Fire deaths by age group, in Alberta homes, 2002-2006

Age Group	Number of Deaths	%
Children 11 years and under	9	10
Youth, 12-17	2	2
Adults, 18-64 years	65	70
Seniors, 65+	18	19
Total	94	101

Although seniors accounted for 19 per cent of fire deaths, they have the highest risk of dying in a home fire in Alberta compared to all other age groups.

Table 5. Home Fire Deaths by Probable Cause: 2002 - 2006

Probable Cause	Number of Deaths	%
Burn	7	7
Other	13	14
Physical Injury	2	2
Smoke Inhalation	72	77
Total	94	100

Inhalation of smoke is the number one cause of death in home fires. Smoke has toxic gases such carbon monoxide, hydrogen cyanide, etc. that can be lethal. Early detection of smoke during a fire and sounding an alarm by a smoke alarm can provide valuable life-saving seconds to escape from a building. In addition, a well-practiced fire escape plan will enable everyone to escape quickly and safely.

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Table 6. Condition of fire fatalities in Alberta homes, 2002 – 2006

Condition	Number of Deaths	%
Asleep at time of fire	22	23
Bedridden/Physical Handicap	4	4
Impaired: Alcohol/Drugs/Medicn.	16	17
Awake and normal	15	16
Too young to react to fire	1	1
Mental Handicap(Senile)	1	1
Unknown or unclassified	35	37
Total	94	100

Most fire deaths occur in people who are asleep at the time of the fire. An early warning from a smoke alarm could save lives. A well-practiced fire escape plan can also enable people to know what to do during a fire emergency. In some fires, such as those involving cooking, the victim is close at hand and awake. Using safe methods to put a fire out and/or escape can save lives in such fires.

Table 7. Action of fire fatalities in Alberta homes, 2002-2006

Action	Number of Deaths	%
Injured while attempting escape	7	7
Overexertion, heart attack	1	1
Entered/remained for rescue purposes	4	4
Entered/remained for firefighting	1	1
Loss of judgment/panic	3	3
Did not act	16	17
Unknown or unclassified	62	66
Total	94	100

The action of 66 per cent of fatalities is unknown or unclassified. Keeping exits and pathways clear, and having a well-rehearsed escape plan can reduce the number of fire deaths in Alberta homes. Returning or remaining in a burning building is a high risk activity that can have fatal consequences.

Preventing fires ... in and around the house

We read about it in the newspaper or hear about it on the radio or television. And we hope it never happens to us. But rather than rely on luck, there are many things that we can do to prevent fire from happening in our homes. In fact, there are safety measures we can take for each room in our house and outdoors too.

Kitchen – Cooking is the number-one cause of home fires. The best way to prevent a cooking fire is to stay in the kitchen and pay close attention when using the stovetop. In addition, keep items that can catch fire well away from the stove top.

If you experience a small pan fire, put on an oven mitt and carefully slide a tight-fitting lid over the pan. This cuts the oxygen and allows the fire to die down. Leave the pan covered and in place until it has completely cooled. Never throw water on a flaming pan or pot of oil because an explosion of flaming oil droplets will erupt, **spreading the fire and causing injuries.**

Bedrooms – Never smoke in bed, and keep **clear** a minimum distance of one metre (three feet) around space heaters. Keep smoker's materials away from children to prevent them playing with fire. Put out candles before going to bed. Have working smoke alarms on every level of the home, including the basement. For added protection, install smoke alarms inside each bedroom. A combination of the two types of smoke alarms – ionization and photoelectric – may provide the best protection. The type of alarm will be printed on the box or package.

Bathroom – Hot water burns like fire. You can prevent hot-water burns by replacing the shower head and tub spout with new models that have anti-scald technology.

Living Room – **Do not overload** electrical outlets and make sure that no furniture is sitting on a cord. If using candles, use them with care. Make sure an adult is in the room and paying attention when a candle is lit and be sure the candle is blown out before leaving the room.

Basement – Never store flammable products indoors. Vapours from gasoline, paint thinner and other similar products can be ignited by open flames, including the pilot light in gas water heaters and other appliances.

Laundry Room – Lint that builds up in the dryer is a fire hazard. Clean the lint basket after every load of laundry. Occasionally, use the vacuum attachment to clean inside the dryer vent. Only use the dryer when you are home, and turn it off if you go out.

Garage – Store only small amounts of gasoline in a locked cabinet or shed, using a tightly-sealed container approved for gasoline storage. Lock your garage entry doors at night to prevent potential arsonists or vandals from entering and setting fire.

Backyard – Keep children and pets away from the grilling area.

Kitchen safety means staying focused

Did you know that cooking fires continue to be the number one cause of home fires and home fire injuries in Alberta? Yet, most kitchen fires can be avoided by paying attention to cooking in the kitchen. Follow these safety tips to avoid a kitchen fire.

In the kitchen

- Check on your cooking regularly and use a timer to remind you that the stove or oven is on.
- Keep children and pets away from cooking areas.
- Use the back burners of the stove whenever possible.
- Turn pot handles inward to reduce the risk that pots and hot contents will be knocked over.
- If frying foods, use a temperature-controlled fat fryer or skillet designed for a maximum temperature of 200 C.
- Keep potholders, oven mitts, utensils, food packaging, paper and plastic bags, towels and other flammable objects away from the stovetop.
- Avoid wearing loose fitting clothing or dangling sleeves while cooking.
- Clean food and grease away from stovetops.
- Avoid plugging multiple items into the same wall socket.

Microwave fire safety tips

- Plug a microwave directly into the wall socket.
- Use only microwave-safe containers to heat food.
- Cool food for a minute or more before removing it from the microwave.
- Open microwave containers slowly to avoid burns from hot steam escaping from the container(s).
- Never use aluminum foil or metal objects in a microwave oven.

Preventative actions

- Keeping an oven mitt and lid nearby when cooking.
- If a small grease fire starts in the pan, smother the flames by carefully sliding the lid over the pan.
- For an oven fire, turn off the heat and keep the door closed to prevent flames from spreading and possibly burning you or your clothes.
- Keep a multi-purpose fire extinguisher in the kitchen in case of an emergency. Make sure you know how to use it BEFORE an emergency occurs.

The facts behind cooking fires and injuries

Unattended cooking is the single leading factor contributing to cooking fires. In fact, most cooking-related fires are due to hot cooking stoves/ranges left unattended. People who are multi-tasking in the kitchen may lose track of what is cooking on the stove; and people who begin cooking when drowsy, impaired by alcohol or drugs or otherwise limited may be more likely to stop paying attention to what is on the stove or in the oven. Properly maintained smoke alarms also provide important an **early warning** of fires that occur when the cooking is forgotten or the cook falls asleep. Provided below are some facts about cooking fires, followed by tips that can be used to help reduce the number of cooking-related fires and fire injuries in Alberta.

Cooking equipment was involved in 21 per cent of home fires reported in 2002 - 2006

Cooking equipment, most often a range or stove top, is the leading cause of reported home fires and home fire injuries in Alberta. When we talk about cooking-related fires, it means that cooking equipment provided the heat that started the fire, not that the equipment malfunctioned. More cooking equipment fires are caused by human error than equipment malfunction.

Findings by gender and age

- Males face a disproportionate risk of cooking fire injury relative to the amount of cooking they do.
- Although women do the majority of the cooking more males are injured in these fires.
- Adults over 65 face a higher risk of death from cooking fires.

Young children are at high risk from non-fire cooking-related burns

Although young children are not at high risk for cooking fire injuries, their risks of thermal burns and scalds from cooking equipment, cookware, tableware or hot foods or beverages are very high. Children may be injured when they reach and pull down on a cord or container, when they run into or are run into by an adult carrying something hot or when they touch hot cooking equipment, cookware or tableware.

Many other cooking fires begin because combustibles are too close to cooking heat sources

Some type of combustible material too close to the cooking equipment can also be a common cause of cooking-related fires. This can be the second leading factor contributing to ignition for home cooking fires, after unattended cooking. Combustibles include loose clothing, potholders, oven mitts, wooden utensils, paper or plastic bags, food packaging, towels or curtains. Certain types of clothing, including garments with loose, flowing or dangling sleeves, can come in contact with a hot element or flames and ignite. Older adults are at a higher risk for such fire injuries.

Frying is the cooking method with the highest risk

Frying accounts for a majority of cooking fires. Many scald burns from hot oil occur when the oil spills on individuals carrying flaming pans. In some cases, water is thrown on a

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flaming pan or pot of oil and makes the fire worse as an explosion of tiny burning oil droplets can spread the fire and inflict severe burn injuries.

The combination of unattended cooking and a pan or pot of oil heating on a stove is a dangerous one. When cooking oil is heated above 200 C, it can catch fire. This is why temperature-controlled skillets or deep-fat fryers, which have a factory-set upper limit of 200 C, are the best option for frying.

Most home cooking injuries occur when people try to fight the fire

Water should never be used on a cooking oil or grease fire or on fires with electrical components. Smothering a fire with a lid is usually the best method although one must be careful not to inflict burns in doing so. Keep your home safe from fire by:

- choosing, installing and properly using the right cooking equipment,
- using cooking equipment tested and approved by a recognized testing facility,
- following manufacturers' instructions and code requirements when installing and operating cooking equipment,
- plugging microwave ovens or other cooking appliances directly into an outlet (never use an extension cord for a cooking appliance, as it can overload the circuit and cause a fire),
- watching what you heat,
- staying in the kitchen when you are frying, grilling or broiling food (if you leave the kitchen for even a short period of time, turn off the stove),
- if you are simmering, baking, roasting or boiling food, checking it regularly, remaining in the home while food is cooking, and using a timer to remind you that you're cooking,
- staying alert – to prevent cooking fires, you have to be alert (you won't be if you are sleepy, have been drinking alcohol or have taken medicine that makes you drowsy),
- keeping things that can burn away from heat sources,
- keeping anything that can catch fire – potholders, oven mitts, wooden utensils, paper or plastic bags, boxes, food packaging, towels or curtains – away from your stovetop,
- keeping the stovetop, burners exhaust fan filters/ducts and oven clean,
- keeping pets off cooking surfaces and nearby countertops to prevent them from knocking things onto the burner and
- wearing short, close-fitting or tightly rolled sleeves when cooking (loose clothing can dangle onto stove burners and can catch fire if it comes in contact with a gas flame or electric burner).

Know what to do if your clothes catch fire

If your clothes catch fire, stop, drop, and roll – stop immediately, drop to the ground and cover your face with your hands. Roll over and over or back and forth to put out the fire. Immediately cool the burn with cool water for three to five minutes and seek emergency medical treatment.

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Know what to do if you have a cooking fire

- When in doubt, just get out! When you leave, close the door behind you to help contain the fire. Call 9-1-1 or the local emergency number after you leave.
- If you do try to fight the fire, be sure others are already getting out and you have a clear path to the exit.
- Always keep an oven mitt and a lid nearby when you're cooking. If a small grease fire starts in a pan, smother the flames by carefully sliding the lid over the pan (make sure you are wearing an oven mitt). Turn the burner off. Do not move the pan. To keep the fire from re-starting, leave the lid on until the pan is completely cool.
- In case of an oven fire, turn off the heat and keep the door closed to prevent flames from burning you or your clothing.
- If you have a fire in your microwave oven, turn it off immediately and keep the door closed. Never open the door until the fire is completely out. Unplug the appliance if you can safely reach the outlet. After a fire, both ovens and microwaves should be checked and/or serviced before being used again.

Prevent and treat scalds and burns

- To prevent spills due to overturned appliances containing hot food or liquids, use the back burners when possible and/or turn pot handles away from the stove's edge. Keep all appliance cords coiled and away from counter edges.
- Use oven mitts or potholders when moving hot food from ovens, microwave ovens or stovetops. Never use wet oven mitts or potholders as they can cause scald burns.
- Replace old or worn oven mitts.
- Treat a burn right away by putting it in cool water for three to five minutes. If the burn is bigger than a loonie or if you have any questions about how to treat it, seek medical attention right away.

Protect children from scalds and burns

- Young children are at high risk of being burned by hot food and liquids.
- Keep young children away from the cooking area by enforcing a "kid-free zone" of one metre (three feet) around the stove.
- Keep young children at least one metre (three feet) away from any place where hot foods or drinks are being prepared, placed or carried. Keep hot foods and liquids away from table and counter edges.
- When young children are present, use the stove's back burners whenever possible.
- Never hold a child while cooking, drinking or carrying hot foods or liquids.
- Teach children that hot things burn.
- When children are old enough, teach them to cook safely; supervise them closely.

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Install and use microwave ovens safely

- Place or install the microwave oven at a safe height, within easy reach of all users. The face of the person using the microwave oven should always be higher than the front of the microwave oven door. This is to prevent hot food or liquid from spilling onto a person's face or body from above and to prevent the microwave oven itself from falling on to a person.
- Never use aluminum foil or metal objects in a microwave oven. They can cause a fire and damage the oven.
- Heat food only in containers or dishes that are safe for microwave use.
- Open heated food containers slowly away from the face to avoid steam burns. Hot steam escaping from the container or food can cause burns.
- Foods heat unevenly in microwave ovens. Stir and test before eating.

Have working smoke alarms

- Install smoke alarms on every level of your home, outside each sleeping area. Additional smoke alarms may also be installed inside bedrooms. For the best protection, interconnect all smoke alarms throughout the home. When one sounds, they all sound.
- Test each smoke alarm at least monthly.
- Install a new battery in all conventional alarms at least once a year.
- If the smoke alarm chirps, install a new battery in a conventional smoke alarm. Replace the smoke alarm if it has a 10-year battery.
- To prevent nuisance alarms, move smoke alarms farther away from kitchens according to manufacturers' instructions and/or install a smoke alarm with a pause button.
- If a smoke alarm sounds during normal cooking, press the pause button if the smoke alarm has one. Open the door or window or fan the area with a towel to get the air moving. Do not disable the smoke alarm or take out the batteries.
- Treat each smoke alarm activation as a likely fire and react quickly and safely to the alarm.

Adapted from: Behavioral Mitigation of Cooking Fires published by the US Fire administration, 2007: http://www.usfa.dhs.gov/downloads/pdf/publications/cooking/fa-312.pdf

Smoking can be deadly

We hear it in the news and we read it on cigarette packages – smoking can be deadly. But did you know that it can be deadly in more ways than one?

Sure we've all heard the warnings that cigarettes can cause cancer, but there's another reason why smoking can be deadly – it is also the cause of many fires. According to Health Canada's website, slightly less than five million Canadians smoke. That's a lot of smokers and a huge potential for smoking-related fires. Just look at Alberta's statistics.

Between 2002 and 2006, there were nearly 900 smoking-related fires. These fires killed 19 people, injured 111 and caused $41 million in property losses in Alberta homes, according to fire statistics collected by the Alberta Emergency Management Agency. In Alberta homes, most smoking-related fires start in the living room, family room, den or bedroom. Many of these fires are started by someone falling asleep in bed or on upholstered furniture such as a sofa while smoking. Quite often, the fire victim is also impaired by alcohol, drugs or medication and this prevents them from waking up before they suffer fatal smoke inhalation or burns.

In addition, smoking bans on public property has **increased** the number of people smoking outside. This creates an increased risk of smoking-related fires outside buildings and homes. Whether you are a smoker or have visitors who are smokers, there are several ways to lessen the likelihood of a smoking-related fire in your home.

- If you or visitors at your home smoke, smoke outside.
- Use deep, wide ashtrays.
- Ensure ashtrays are placed on a sturdy table.
- Flush cigarette butts and ashes down the toilet. Do not dispose of them in a trash can or throw them to the backyard where dried grass or leaves can catch fire.
- Check under furniture cushions and pillows for out of sight cigarette or cigar butts or ashes.
- Never smoke while handling flammable liquids such as gasoline.
- Remember that all matches, lighters, cigarettes, pipes and cigars are potentially dangerous. Treat them with caution.
- Never smoke in a home where oxygen is being used.
- Choose to smoke fire-safe cigarettes.
- Avoid smoking if you are tired, have been drinking or are taking medicine or other drugs.
- Keep matches and lighters up high and out of the reach and sight of children.
- Periodically check the elderly and/or persons with disabilities who smoke and may be less able to save themselves in the event of a fire.

RIP cigarettes – what are they?

With a mandate to help the people of Canada to maintain and improve their health, Health Canada implemented a number of initiatives to prevent fires started by burning cigarettes. These initiatives included educating the public about the danger of smokers' materials, establishing fire safety standards for consumer products such as mattresses and bedding, regulating ignition sources such as matches and lighters and working with the Canadian Council of Furniture Manufacturers to implement voluntary flammability standards for upholstered furniture.

Despite these efforts, fires started by smokers' materials continued to exact a significant toll on Canadian society. According to a study done by the Canadian Association of Fire Chiefs, there were approximately 70 deaths and 300 injuries every year. The next step was doing something about the cigarettes, which resulted in the Ignition Propensity Standard, which came into effect on October 1, 2005.

The regulation on ignition propensity (RIP) was developed by Health Canada as part of their efforts to prevent fires started by burning cigarettes. Ignition propensity is the ability of a heat source to ignite a substrate. Ignition propensity depends on a number of factors which include the characteristics of the substrate, the heat source and the zone of contact between the heat source and the substrate.

The regulations state that all cigarettes manufactured in or imported into Canada must burn their full length no more than 25 per cent of the time when tested using ASTM International method *E2187-04: Standard Test Method for Measuring the Ignition Strength of Cigarettes*. The regulations only apply to manufactured cigarettes, including cigarettes manufactured for export.

How does it work?

A fire-safe cigarette has a reduced propensity to burn when left unattended. The most common fire-safe technology used by cigarette manufacturers is to wrap cigarettes with two or three thin bands of less-porous paper that act as "speed bumps" to slow down a burning cigarette. If a fire-safe cigarette is left unattended, the burning tobacco will reach one of these speed bumps and self-extinguish.

While all cigarettes have the *potential* to ignite fires, the use of "fire-safe" technology provides a tremendous reduction in those risks. A fire-safe cigarette cuts off the burning time before most cigarettes are able to ignite things like furniture or bedding material.

Source: Health Canada website, NFPA website

Heating safety at home

With Alberta's long and cold winters, many Albertans use a variety of methods to keep their homes comfortably warm. These include furnaces, fireplaces, wood-burning stoves and portable heaters. In addition to using heating equipment that is labeled by a recognized testing agency such as Canadian Standards Association (CSA) or Underwriter's Laboratories (UL/ULC), cleaning and regular maintenance are important steps in ensuring the safety of the heating sources in your home. Additional safety guidelines are provided below.

Furnaces

- Replace and clean your furnace filter regularly (three to four times a year).
- Keep the area around your furnace clean and unobstructed.
- Keep the burner area of your furnace clean.
- Ensure that combustible materials such as newspaper, cardboard, paint thinner, paint rags, etc., are not anywhere near your furnace.
- Have your heating system inspected and serviced by a qualified technician once a year before the heating season starts.

Fireplaces

- Have a service person inspect chimneys, fireplaces, wood and coal stoves and central furnaces once a year. Have them cleaned when necessary.
- As most fireplaces are not intended as a primary heating source, continuous use of fireplaces may cause overheating and can be dangerous.
- Make sure that the fire is completely out before going to bed or leaving the home.
- Open the damper before you start a fire and keep it open until the ashes are cool to the touch. An open damper will draw smoke up the chimney instead of allowing it to enter your home.
- Use a screen in front of the fireplace to prevent embers and sparks from escaping and igniting carpets or other combustible materials.

Wood-burning stoves

- Use clean, well-seasoned wood that has been split and dried properly.
- Regularly remove ashes and store them in a covered metal container a safe distance from the house. Only dispose of ashes after they are completely cool.
- Burn only wood – not wrapping paper or garbage – in your wood-burning stove.

Portable electric heaters

- When purchasing a space heater, be sure to choose one that automatically shuts off if the heater falls over.
- Space heaters need space – keep heaters at least one metre (three feet) away from your bed, curtains and other combustible materials.
- Avoid using an electrical heating device on the same circuit with another high wattage appliance, such as a microwave or toaster oven.
- Regularly inspect the wall outlet and heater plug and cord for excessive heat.
- Heaters should be placed on a flat, level surface so that they do not tip over and dislodge or break parts in the heater.
- Check electrical heating equipment regularly and replace loose, frayed or damaged cords.

NOTE: never use a range or oven to heat your home.

The invisible killer ...

Carbon monoxide (CO) is the "invisible" killer. Carbon monoxide is a colourless and odourless gas.

What is carbon monoxide?

Carbon monoxide is produced by burning fuel. Therefore, any fuel-burning appliance (gas, stove, furnace, fireplace, water heater) in your home is a potential CO source. When cooking or heating appliances are kept in good working order, they produce little CO. Improperly operating appliances can produce fatal CO concentrations in your home.

Running a car or generator in an attached garage can cause fatal CO poisoning in the home. So can running a generator or burning charcoal in the basement, crawlspace or living area of the home.

Carbon monoxide clues you can see ...

- Rusting or water streaking on vent/chimney.
- Loose or missing furnace panel.
- Soot.
- Debris or soot falling from chimney, fireplace or appliances.
- Loose or disconnected vent/chimney, fireplace or appliance.
- Loose masonry on chimney.
- Moisture inside of windows.

Carbon monoxide clues you cannot see ...

- Internal appliance damage or malfunctioning components.
- Improper burner adjustments.
- Hidden blockage or damage in chimneys.

Only a trained service technician can detect hidden problems and correct these conditions!

Warnings ...

- Never leave a car running in a garage, even with the garage door open.
- Never run a generator in the home, garage or crawlspace. Opening doors and windows or using fans will NOT prevent CO build-up in the home. When running a generator outdoors, keep it away from open windows and doors or air intake vents.
- Never burn charcoal in homes, tents, vehicles or garages.
- Never install or service combustion appliances without proper knowledge, skills and tools.
- Never use a gas range, oven or dryer for heating.
- Never put foil on the bottom of a gas oven because it interferes with combustion.
- Never operate an unvented gas-burning appliance in a closed room

What should you do?

- Proper installation, operation and maintenance of fuel-burning appliances in the home are the most important factors in reducing the risk of CO poisoning.
- Make sure appliances are installed according to the manufacturer's instructions and the code requirements. Most appliances should be installed by professionals.
- Always follow the appliance manufacturer's directions for safe operation.

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- Have the heating system (including chimneys and vents) inspected and serviced annually by a trained service technician.
- Examine vents and chimneys regularly for improper connections, visible cracks, rust or stains.
- Look for problems that could indicate improper appliance operations:
    - decreased hot water supply,
    - furnace unable to heat house or runs continuously,
    - soot, especially on appliances and vents,
    - unfamiliar or burning odour or
    - increased moisture inside of windows.
- Operate portable generators outdoors and away from open doors, windows and vents that could allow CO to come indoors.

In addition, install battery-operated CO alarms or plug-in CO alarms with battery back-up in your home. Every home should have a CO alarm in the hallway near the bedrooms in each separate sleeping area. The CO alarms should be certified to the requirements of the most recent UL, IAS or CSA standard for CO alarms. Test your CO alarms frequently and replace dead batteries. A CO alarm can provide added protection, but is no substitute for proper installation, use and upkeep of appliances that are potential CO sources.

Symptoms of CO poisoning

The initial symptoms of CO poisoning are similar to the flu (but without the fever). They include headache, fatigue, shortness of breath, nausea and dizziness.

If you suspect that you are experiencing CO poisoning, get fresh air immediately or you could lose consciousness and die. Leave the home and call for assistance from a neighbour's home.

Source: U.S. Consumer Product Safety Commission, Washington, DC

Electrical safety in the home

In homes across Alberta, people are switching lights on and off, watching television, checking their email on the computer, talking on the phone or cooking in the kitchen. In most cases, they are using electricity, an important energy source that we rarely even think about. Yet, without precautions this electrical energy can be a major cause of fire in our homes. To ensure your home is safe from electrical fires, take a moment to review the tips below.

- Use the proper light bulbs in all lamps and light fixtures – check the label inside the light fixture to determine correct light bulb wattage.
- All electrical outlets and switches should be covered by faceplates.
- Use only electrical cords that are in good working condition.
- Electrical outlets in your bathroom(s) should have a Ground Fault Circuit Interrupter (GFCI), which protects you from a dangerous shock if water and electricity come together.
- Avoid tying or knotting cords.
- Make sure furniture is not sitting on electrical cords.
- Keep appliances dry and away from water at all times.
- Unplug toaster ovens, coffee makers and other small appliances after using them.
- Avoid plugging in too many appliances at once.
- Always look for the ULC or CSA mark on the label when you buy any electrical appliance (lamps, toasters, microwaves, coffee makers, etc.).
- Call an electrician if your lights flicker or if your power goes out a lot.

Arson and vandalism fires in Alberta

From 2002-2006, there were 6,268 deliberately set incendiary fires, 14 deaths and 121 injuries. Property losses were $175,557,216. The tables below present the incendiary fire picture for the province.

Table 1. Incendiary fires by year: 2002 – 2006

Year	Fires	Deaths	Injuries	Property Loss $
2002	1,193	5	27	29,941,348
2003	1,352	1	25	37,234,399
2004	1,213	3	21	26,042,030
2005	1,348	4	26	46,564,960
2006	1,162	1	22	35,774,479
Total	6,268	14	121	175,557,216

These fires accounted for 23 per cent of all fires, 9 per cent of all fire deaths, 9 per cent of all fire injuries and 12 per cent of all property losses in fires reported for the province by the fire service and insurance industry.

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There are different kinds of incendiary fires as shown in Table 2, below:

Table 2. Types of Incendiary fires in Alberta 2002 – 2006

Type of Incendiary Fire	Fires	Deaths	Injuries	Property Loss $
Arson-For Fraudulent Purposes	13	0	0	243,660
Arson-For Vengeful/Spiteful Purposes	260	2	20	11,755,459
Arson-For Obscuring Other Crimes	186	0	1	4,435,156
Arson-To Satisfy Compulsive Desires	101	1	4	1,343,804
Suspected Arson	2,045	2	30	65,558,627
Riot, Civil Commotion, Charges Laid	3	0	0	11,500
Vandalism, Mischief-Charges Laid	112	0	3	1,830,746
Vandalism, Mischief-No Charges Laid	1,419	0	6	8,798,673
Children, Set Fire	63	0	7	688,684
Youth, Set Fire	27	0	0	244,725
Arson or Other Set Fires-Undetermined or Unclassified	2,039	9	50	80,646,182
Total	6,268	14	121	175,557,216

Most (65 per cent) incendiary fires are classified as "arson suspected" and "arson undetermined/unclassified." The second most frequent category (23 per cent) of incendiary fires is "vandalism, mischief fires – no charges laid."

Not all properties are targeted equally in incendiary fires. The properties most vulnerable to deliberate fire setting are cars, trucks and buses. Trash and recyclable containers being kept outdoors are the second most frequent target of arsonists and vandals. One and two family dwellings and associated garages are the next commonly targeted property classes. A range of unoccupied outdoor properties are also vulnerable to set fires. Other noteworthy properties include apartments, schools (mostly high schools) and buildings under construction.

Preventing arson and vandalism fires

Most deliberately set fires occur at night and on weekends; preventing such fires in and around your home is much like preventing intruders in your house. In fact, improving the

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security of your home is the best way to discourage potential arsonists and vandals. Provided below are some tips.

- Ensure all windows and doors are locked at night and when the house is empty.
- Make your home looks occupied. Leave a few lights on if you are gone for an extended period of time.
- Keep boxes, trash, wood and other combustibles away from buildings.
- Keep leaves, firewood, overgrown brush and shrubs and other combustibles away from buildings (house, garage, sheds).
- Ensure landscaping around your yard doesn't provide camouflage or hiding places.
- Get rid of rubbish such as newspapers, landscape trimmings and leftover paint. A clean yard prevents potential items being used as fuel sources by arsonists.
- Store all flammable liquids such as paint, gasoline and mowers in locked cabinets, storage units or garages.
- Keep flammable liquids away from heat sources such as furnaces and heaters.
- Dispose of flammable waste materials quickly, using approved methods of disposal.
- Install good lighting around your property to keep it well lit all night. Arson tends to occur in darker areas where arsonists can't be easily seen.
- Ask a neighbour to keep watch over your house when you are away.
- Keep matches and lighters out of the reach and sight of young children.
- If you suspect a child of setting fires, contact your local fire department for assistance in resolving this behaviour.

Tips to keep your vehicle safe from arson and vandalism include:

- parking your car in a well-lit area,
- using a secure parking lot for extended periods,
- closing all windows,
- removing the key from the ignition,
- locking all doors, trunk and tailgate,
- using anti-theft devices and
- reporting abandoned cars to the police.

If you notice any suspicious individuals around your home or around public areas such as garbage bins, heavily-wooded areas or wooden-structured playgrounds, notify your local police department. After all, it's better to be safe than sorry.

Ten things to make your home fire safe

How safe is your home from fire? Have you taken the necessary precautions to keep your home protected from a fire happening in it? Not sure? Then take a moment to read the following 10 things that Albertans can do to make their homes safe from fire.

1. **Watch your cooking** – stay in the kitchen when you are frying, grilling or broiling food. If you must leave, even for a short time, turn off the stove.
2. **Give space heaters space** – keep fixed and portable space heaters at least one metre (three feet) from anything that can burn. Turn off heaters when you leave the room or go to sleep.
3. **Smoke outside** – ask smokers to smoke outside. Have sturdy, deep ashtrays placed on sturdy surfaces for smokers.
4. **Keep matches and lighters out of reach** – keep matches and lighters up high, out of the reach of children, preferably in a cabinet with a child lock on it.
5. **Inspect electrical cords** – replace cords that are cracked, damaged, have broken plugs or have loose connections.
6. **Be careful when using candles** – keep candles at least one metre (three feet) from anything that can burn. Blow out candles when you leave the room or go to sleep.
7. **Have a home fire escape plan** – make a home fire escape plan and practice it with family members at least twice a year.
8. **Install smoke alarms** – install at least one smoke alarm on every level of your home, outside sleeping areas. Interconnect smoke alarms throughout the home. When one sounds, they all sound.
9. **Test smoke alarms** – test smoke alarms at least once a month and replace batteries once a year or when the alarm "chirps" (which alerts you that the battery is low). Replace any smoke alarm that is more than 10 years old.
10. **Install sprinklers** – if you are building or remodeling your home, install residential fire sprinklers. Sprinklers can extinguish a fire in less time than it would take the fire department to arrive.

(Source: www.nfpa.org)

Don't spoil a candlelit dinner with fire

Candles provide a nice addition to any setting, whether it's a candlelit dinner for two, an aromatherapy candle while soaking in the bathtub or candles in the living room for a nice glow. However, they can also be a fire hazard if left unattended or placed near things that can burn.

Most candle fires are caused by human error such as leaving the candle burning with no one in the room or house, burning candles too close to materials that can catch fire, leaving candles burning within the reach of children or pets or when falling asleep. However, some candles have design flaws that also increase the risk of fire. These flaws may intensify flame flare and flame heat, and can cause rapid melting of the wax. One example is candles with multiple wicks that are too close together. This can produce a single high flame or a number of large flames close together.

The materials used in and on candles can also increase the risk of fire if they are combustible. For example, some candles have decorations made of paper, ribbons and tree bark, all of which are very combustible.

Follow these tips to keep your home safe while using candles.

- Always use stable, non-flammable candle holders that will not tip over.
- Position candles away from things that can burn.
- Make sure an adult is in the room and paying attention whenever you light a candle.
- Keep candles where children cannot touch them.
- Always blow out candles before leaving a room or going to sleep.
- Blow out candles carefully, so hot wax won't splatter.
- Do not permit children to have or use candles or incense in their rooms.
- Place candles where they will not be knocked down or blown over.
- If you have children in your home, store candles, matches and lighters in a locked cabinet out of their sight and reach.
- To eliminate the risk of an open candle flame, use battery-powered candles whenever possible, especially when using candles in a decorative setting.
- Always burn candles on a heat resistant surface, such as tile with felt on the bottom.
- Keep burning candles away from children and pets.
- Place free-standing candles in a shallow dish or bowl to catch the wax in case of a blowout.
- Do not burn candles to the very bottom.
- Keep candles at least one metre (three feet) away from anything that can burn, including other decorations and wrapping paper.
- Never use lighted candles on or near a Christmas tree or other evergreens.

Exterior changes can help prevent home fires

Across Alberta, communities are expanding to the edge of their boundaries and many new homes are being built in heavily-treed rural or forested areas. While this is a boon for homeowners wanting to reside closer to nature, there is also a real risk for housing that encroaches on forested areas. Take, for example, the 2003 devastating Okanagan Mountain Park fire that caused the evacuation of more than 27,000 people and destroyed 239 homes on the southern edges of Kelowna, B.C.

Closer to home, the 2001 fire in Chisholm, Alberta destroyed 10 homes, a trapper's cabin, 48 outbuildings and some vehicles. The fire severely impacted the Hamlet of Chisholm through property loss and the disruption of residents' lives. Additionally, the forest industry lost some 4.5 million cubic metres of growing stock and more than 6,300 hectares of regenerated cutblocks. The area's oil and gas industry, railway and electrical infrastructure also experienced substantial losses.

Yet, there are many things that can be done to lessen the likelihood of a forest fire destroying houses in rural areas. Easy steps that homeowners can take include:

- clearing a 10 metre space around the house, especially for flammable trees such as spruce, pine and juniper,
- locating woodpiles away from the house and other buildings,
- keeping the grass mowed and watered,
- thinning and pruning trees at least two metres off the ground and removing deadfall,
- keeping shovels, rakes, hoses, sprinkles and axes handy and
- creating a water supply on the property (pond, creek, tank).

There are also a number of fire prevention choices that can be made prior to construction of the house. These include:

- using fire-resistant materials such as metal, asphalt or clay tile for the roof,
- installing shutters or metal fire screens over doors and windows,
- choosing stucco, brick, metal or concrete for the siding,
- opting for tempered, thermal or smaller double-paned windows,
- including an on-site water source, such as a pond, tank, creek or lake,
- ensuring that the undersides of balconies and decks are sheathed with flame-retardant materials,
- creating a tree and shrub-free barrier of 10 metres around the house and
- if using a propane tank, locating it at least 10 metres away from the house and other buildings.

For more ideas to protect your rural home from fire, visit www.srd.gov.ab.ca/wildfires.firesmart

Sources: www.kelowna.ca, www.srd.gov.ab.ca/wildfire.firesmart, http://atlas.nrcan.gc.ca/site/english/maps/environment/naturalhazards/forest_fires/1

Little things can make a big difference

Home fires can start from a variety of sources, from matches and lighters to damaged extension cords. Other possibilities include improperly stored automotive cleaning fluids or paints or flammable items located too close to heat sources such as light bulbs or heaters. Take a few moments to review these additional safety tips to make your home as fire-safe as possible.

- Install smoke alarms on every level of your home. Be sure to locate alarms outside sleeping areas. Remember to test your smoke alarms once each month.
- Invest in good fire extinguishers, and keep one in the kitchen, in the basement and in the garage. Read the instructions so you know how to use it if needed. However, do not test it or it will need to be recharged.
- Always attend to cooking, and keep a pot lid handy, in case a fire starts. If it does, slide the lid over the pan and turn off the element. If a fire starts in the oven, turn the oven off and keep the door closed. For a microwave fire, unplug the cord and keep the door closed.
- Make sure that the extension cords you are using are never coiled or bunched together. The wires can generate heat which can melt the casing and ignite.
- Use only approved extension cords and avoid plugging too many appliances into one outlet.
- Rinse oily rags and let them dry outdoors, then store them in a lidless metal container (never plastic).
- Keep your bedroom doors closed when sleeping. This creates a smoke barrier between you and the fire, and provides extra time to escape.
- Create an escape plan that includes two escape routes from every room in your home. Practice your plan with every one who lives in your home.
- If building a new home, consider installing a residential sprinkler system.
- If a fire does occur, your first priority is to get out safely. Call 911 or your local emergency number from outside of your home and never attempt to go back into the building.

For more information about keeping your home free from potential fire hazards, contact your local fire department.

Planning ahead with an escape plan

If a fire broke out at your home would everyone in your family what to do?

No matter where you live or how many people live in your home, it is important that everyone understands and practices a fire escape plan. The first step in creating a fire escape plan is to draw your escape plan and arrange a place to meet outside. Plan two ways out of every room.

Just having a fire escape plan isn't enough, though. To escape safely from a home fire you need to make sure that everyone in the home practices the plan. Make sure that everyone knows that if the smoke alarm goes off or someone shouts *fire*, they need to get out as quickly as possible.

Test your smoke alarm by pressing the test button to make sure it is in good working condition. Use the test to start your first practice fire drill. Practice your plan twice a year with every person who lives in your home.

In a typical home fire, you may have as little as two minutes to escape from the time the smoke alarm sounds. Knowing how to use those minutes wisely can make a life-saving difference, so it is important to plan and practice your escape before a fire emergency happens.

Plan your escape

- Make sure that everyone knows the sound of the smoke alarm and what to do if it activates.
- Create an escape plan with the entire household and practice it.
- Make sure your plan identifies two ways out of each room, if possible, and a meeting place outside.
- In basements, place furniture under the window to aid in escaping.
- In two storey homes, have a rescue ladder nearby.
- If there are any obstacles blocking your escape route, move them. Nothing should stand in the way of a safe, quick exit.
- Children need to understand the importance of **GET OUT** and **STAY OUT**. Once children are outside they need to stay outside, and go to a pre-arranged meeting location (tree, light, fire hydrant, etc.).
- Since it is known that children have difficulty waking up to the sound of a smoke alarm during their sleeping hours, practice a fire drill at night.
- Once outside, stay outside.
- Never re-enter a burning building.
- Call the fire department from a neighbour's home or cell phone.

Work with your family to plan your escape routes to ensure that everyone will know how to get out alive!

Fire safety precautions as we age

The baby boom generation is now at or reaching retirement age. Many boomers are also caring for elderly family members. As a result, fire safety should be an important factor for boomers to ensure that they and their loved ones are safe from accidental fires in the home. Simple precautions that boomers and seniors can take include:

- practicing fire-safe behaviours when cooking,
- taking extra precautions with regard to smoking,
- being careful with home heating and the use of electrical appliances,
- ensuring smoke alarms are in working condition and
- developing and practicing a fire escape plan for everyone in the house.

Cooking – as the #1 cause of home fires, extra precaution is needed when cooking. This includes wearing short or tight-fitting sleeves when cooking and keeping towels, pot holders and curtains away from burners. Always double check the kitchen before going to bed or leaving the house. And whether you're making a snack or a big family dinner, never leave cooking unattended. If you have to leave the kitchen to answer the door or the phone, turn the burner off first.

Smoking – careless smoking is the leading cause of fire deaths and the second leading cause of injuries. Therefore, it is important to avoid smoking in bed and ensure that cigarettes or cigars are put out at the first sign of drowsiness. Using deep wide ashtrays and placing them on sturdy tables are good preventative measures. The best approach is to only smoke outdoors.

Heating and electricity – it's easy to be warm and safe during the winter months by taking precautions with heating equipment. Make sure space heaters are placed at least one metre (three feet) away from combustible materials. When buying a space heater, look for one that has an automatic shut off feature if the heater falls over. If using a fireplace, make sure the screen is large enough to catch flying sparks and rolling logs. For electric appliances, discard any frayed cords. And only plug one appliance into a wall socket.

Smoke alarms – smoke alarms are an important household tool, if installed and cared for properly. Install at least one smoke alarm on every level of your home and outside sleeping areas. Make sure smoke alarms are in working condition at all times. This can be done by testing them every month and replacing batteries at least once a year. Replace any smoke alarm that is 10 years old or older.

Escapes – to ensure you know how to escape safely during a fire emergency, develop a fire escape plan and practice it at least twice a year. Keep escape routes and fire exits clear of debris and obstructions.

SIDEBAR

Most fire victims die from smoke, not flames. Smoke always rises so it is important for seniors to Get Low and Go. While the old adage used to be crawl on your hands and knees to safety, this isn't the best advice for seniors. Crawling may be difficult and/or extremely slow for seniors. In the early stages of fire, where there is a wisp of smoke near the ceiling, a senior's best action is to get out of the house as quickly as possible. If it is

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necessary for a senior to travel through a smoky area, he should crouch down a bit to get low and go under the smoke to the nearest exit. Since smoke rises to the ceiling, cooler, cleaner air will be closer to the floor.

Consider fire safety for persons with disabilities

If you have family members or visitors who have a disability, it's important to include them in your fire escape planning as they may have additional needs. If special assistance or devices are required, they need to be identified and arranged for as part of the escape plan. Help increase fire safety for persons with disabilities by following the guidelines below.

- Consider locating the bedroom on the ground floor near an exit to make escape easier. Make sure that smoke alarms are installed in or near any sleeping area and have a telephone or telecommunications device installed there too. Consider having ramps constructed for emergency exits.
- Install a smoke alarm that uses a flashing strobe light or vibration along with the sound alarm if any member of your household is deaf or hard of hearing.
- Some smoke alarms are equipped with large, easy to push test buttons. Alarms that can be tested using a flashlight or television remote are particularly helpful for people with mobility challenges, people who are blind or have low vision or for older adults.
- Make sure the escape plan includes everyone in the household. If you or someone you live with cannot escape alone, designate a member of the household to assist him or her (have a back up plan in case the designated helper is away at the time of the emergency).
- Conduct regular fire drills to determine if everyone is able to hear and respond to smoke alarms. If someone requires additional warning or uses a guide dog, incorporate that need into the fire escape plan.
- Post emergency telephone numbers in central locations. Keep a communications device nearby so that communication with emergency personnel is possible should fire or smoke trap someone in their room.
- Place a working flashlight in the sleeping area. It may be needed to escape in the dark or signal firefighters if you are trapped by a fire.
- Contact your local fire department to review emergency escape procedures and discuss your abilities and any challenges.

SIDEBAR

Special alarms available

People who are deaf or hard of hearing should use smoke alarms with strobe (flashing) lights. Make sure that the alarm you are using has been tested and certified by an independent testing laboratory (such as CSA or ULC). The alarms for sleeping areas with strobe lights are required to be of a special high intensity that can wake a sleeping person. Most major smoke alarm companies offer alarms with strobe lights.

Fire safety planning for college and university students too!

When planning fire safety for the home, parents and caregivers should also give consideration to their children who are moving out for post-secondary education, advises the Alberta Emergency Management Agency (AEMA). Whether staying in an institutional residence, renting an apartment or sharing a basement suite, students need to make sure their new home is a safe environment.

"Going to college or university is an important milestone and the AEMA doesn't want that to be marred by a potentially tragic fire," said Acting Fire Commissioner Ernie Polsom. "Students bring items with them to make their home away from home more comfortable, such as high-powered electronics and appliances. While these items can make life more enjoyable, they can also create a potential danger when used improperly or left unsupervised."

Across North America, there were several specific causes for fires on college campuses: cooking, intentionally set fires and open flame. Most college-related fires are due to a general lack of knowledge about fire safety and prevention. Cooking equipment caused 72 per cent of student residence fires.

The majority of student fire deaths occur in off-campus housing that lacks sufficient exits and automatic fire sprinklers and is missing or has inoperative smoke alarms sprinklers. Deaths and injuries in student residences and off-campus housing are associated with candles, incense, careless smoking habits and misuse of alcohol – which impairs judgment and affects evacuation efforts.

Provided below is a list of things that students can easily do to protect themselves from fire or survive in the event that a fire does occurs.

- If possible, live in housing equipped with an automatic fire sprinkler system.
- Ensure that your housing has interconnected smoke alarms on all levels and that they are working at all times.
- Your room or apartment must have working smoke alarms. Test them monthly and notify the landlord immediately if they're not working.
- Take each alarm activation seriously and evacuate. If an alarm is being activated needlessly by cooking or by a shower, relocate the alarm. Do not tamper with or disable it. Consider getting a smoke alarm with a hush feature.
- Always know two ways out of the building you are in, whether it is your house, apartment, residence hall, movie theater or nightclub.
- Do not leave candles unattended.
- Keep candles away from draperies and linens.
- Take special care with holiday and seasonal decorations, and avoid using combustible materials.
- Ensure access to safety devices and doors and windows.
- Cook only where it is permitted and never leave cooking unattended.
- Keep your cooking area clean and uncluttered.
- If a fire starts in a microwave, keep the door closed and unplug the unit.
- Use ashtrays and make sure cigarette butts are disposed of properly.
- After a party, check the seat cushions on couches and chairs for smoldering butts.

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- Do not overload electrical outlets, extension cords or power strips, which may cause them to overheat.
- Use electricity wisely: toasters, coffeemakers and microwave ovens should be plugged directly into an outlet. If you must use an extension cord, buy one that is the correct gauge for the appliance and has a CSA or ULC approval mark on the label.
- Security bars on windows should be equipped with a quick-opening device on the inside so the bars can be removed quickly.
- Make sure you have a fire extinguisher and, more importantly, know how to use it BEFORE the fire breaks out.
- It is risky to smoke when you've been drinking or are drowsy.
- NEVER smoke in bed.
- Smoke outside.
- Plan to escape: know two ways out of your room or apartment in case of fire. Identify all exists and make sure you can use them. If you live in a high-rise apartment, familiarize yourself with the building's fire safety plan. If you discover fire, call the fire department from a safe location outside.
- If you have to escape through smoke, get low and go under the smoke to your exit.
- Before opening a door, feel the door. If it's hot, use your second way out.
- Use the stairs; never use an elevator during a fire.
- If you're trapped, call the fire department and tell them where you are. Seal your door with rags and signal from your window. Open windows slightly at the top and bottom; shut them if smoke rushes in from any direction.

Your smoke alarm is an important safety device

The sound of a smoke alarm alerts everyone that smoke or fire is nearby. A smoke alarm may be a useful life-safety device but only if it is working. When a smoke alarm goes off, it is your signal to get out of your home quickly. Because smoke alarms are designed to detect smoke very early, this gives you and your family precious seconds to escape from homes or buildings before the fire and smoke spread.

Installing and testing smoke alarms

To ensure your family will be alerted to any fire danger, follow the guidelines below when installing or testing smoke alarms in your home.

- Purchase smoke alarms that have been tested – look for the ULC or CSA logo.
- Install smoke alarms on every level of your home, including the basement.
- Smoke alarms should be mounted high on walls or on ceilings, by following manufacturers' instructions.
- Avoid installing smoke alarms near windows, doors or ducts where drafts might interfere with their operation.
- Test each smoke alarm every month.
- Replace batteries in your smoke alarms at least once each year.
- If your smoke alarms are more than 10 years old, replace them with new ones.

Handling nuisance alarms

Steam from the shower, oven, stove or toaster can cause smoke alarms to activate. If these types of nuisance alarms occur, **do not remove the battery.** Instead, try one of the following options to reduce nuisance alarms.

- Relocate the alarm – sometimes moving the alarm just a few inches can make the difference.
- Install a smoke alarm with a pause button that will allow you to temporarily silence the alarm.
- Replace alarms located near kitchens with photo-electric types.

Make sure that everyone in your home knows exactly what to do when the alarm sounds or there is smoke or fire.

- Get out quickly if there is a fire, because fire moves extremely fast.
- Teach children to never hide in closets or under beds.
- Parents should take into account the limitations of young children, the elderly or disabled when planning a fire escape.
- Know two ways out of all rooms. If heat or smoke blocks the usual fire exit (door), then use the second way out (another door or the window).
- Test doors before opening them:
    - feel the door and look for smoke coming in around the edges,
    - if the door is not hot and there is no smoke coming in, open it slowly, but be prepared to slam it shut if heat or smoke rush in and
    - if the door is hot, use your other exit.
- If you must escape through smoke, get low and go under the smoke to the nearest exit. Smoke will rise to the ceiling, leaving cooler, cleaner air close to the floor.
- If you live in an apartment building and the smoke alarm goes off, only use the stairs. NEVER use an elevator.

Preventing children from playing with fire

Developmental studies have shown that 40 to 50 per cent of children have experimented or misused fire out of curiosity. Recent studies in the U.S. have identified why children engage in this behaviour.

- **Curiosity /experimentation:** As a part of exploring and experiencing the world around them, children as young as three years of age may play with fire if fire starting materials such as lighters or an open flame are within easy access.
- **False sense of control:** Children under the age of 10 may not understand how fast a fire can spread. They are unable to conceptualize how a small candle flame could spread quickly and engulf an entire house. The ability to blow a candle flame out in one breath, for example, can give a child a false sense of control over fire.
- **Exposure to fire activities:** When parents and caregivers give children tasks such as collecting fire wood to start a camp fire, children may perceive this as permission to engage in fire activities. These children may not be able to manage a fire that gets out of control. Movies that show people walking through buildings on fire without any protective gear can also impart a false sense of control over fire to children who may not recognize the difference between reality and fiction.
- **Ready access to fire starting materials:** A cigarette lighter or a box of matches left on a coffee table or a lit candle left in a room where children are unsupervised can be an invitation to play with fire.
- **Lack of supervision:** Although this can include situations where children are left unattended by parents and caregivers for long periods of time, it also includes short lapses in everyday situations when children are left alone such as when adults take showers, answer the phone or wake up late on a Saturday morning when children are already awake and active.

To prevent children from playing with fire …

- **Model appropriate behaviour around fire:** This is based on the fact that children are always watching and trying to imitate the attitudes and behaviours of grown-ups. Exercise proper care and caution while using fire at home (cooking, lighting the fireplace) or outdoors (lighting a camp fire or the barbeque) can be a lesson in fire safety for children who are watching. Impatient behaviour and a cavalier attitude, for example, when trying to light a camp fire that stubbornly refuses to start by adding gasoline or lighter fluid can convey the wrong fire safety lesson to children.
- **Restrict access:** It is the parent/caregiver's responsibility to keep cigarette lighters and matches in a locked box stored high and away from children's reach. Novelty lighters that resemble toys can lead children to play with fire. Parents and caregivers must be especially vigilant to prevent access to these items in the home.
- **Clear rules and consequences:** Children must be taught at home that cigarette lighters, matches, lit candles, a hot stove or a lit fireplace are for adult use only. If children find lighters or matches they should be told not to touch them and to tell a grownup.
- **Assign responsibility:** Parents and caregivers need to carefully consider the most appropriate age at which a child is able to handle fire and know what to do if something goes wrong. Child fireplay expert and Chair of the National Fire Protection Association - Education Section Paul Schwartzman says that it is only at about the age of 10 that children are able to understand the consequences of fire and it could be at age 13 when children develop the capacity to manipulate ideas and concepts.

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- **Education:** Children can learn fire safety at home and at school. While parents and caregivers have a role to educate and be good role models at home, they can also encourage teachers to teach fire prevention and safety to their children. Education can include topics such as what things can burn, the speed with which a fire can spread, the power of a single match, consequences of fireplay in terms of financial, legal, loss of things, injury, death and loss of trust and friendships.
- **Child fire setters**: Parents and caregivers should seek help from the local fire department if they have a child who has a tendency to set fires deliberately. Such behaviour could be a "cry for help" and may require professional help to address.

Adapted from a web seminar presented in March 2008 by the Home Safety Council: http://www.homesafetycouncil.org/expert_network/expertnetworkwebinars_march08.aspx